TCT-411

Survival and discharge rates for Octogenarians Undergoing Coronary Revascularization procedures after Acute Myocardial Infarction

Abhishek Deshmukh[1, 2], Sameer Raina[1, 2], Freij Gobal[1, 2], Rajesh Sachdeva[1, 2]
[1]University of Arkansas, Little Rock, AR; [2]Central Arkansas Veterans Healthcare System, Little Rock, AR

Background: Small subsets of studies have shown difference in mortality, length of stay (LOS), number of percutaneous coronary intervention (PCI) and coronary artery bypass surgery (CABG), in octogenarians presenting with acute myocardial infarction (AMI).The aim of our study was to compare outcomes of AMI in octogenarians with non octogenarians in a nationwide representative cohort
Methods: Using the Nationwide Inpatient Sample 2007, patients age ≥ 80 years discharged with the primary diagnosis of AMI were identified through appropriate ICD-9 clinical modification codes. Outcome variables included in-hospital mortality, LOS, coronary revascularization procedures performed and discharge disposition. Multivariate regression analysis was performed using appropriate survey commands in STATA.
Results: Of the 135,634 discharges with primary diagnosis of AMI, 32,876 patients (24.24%) were aged ≥80. The adjusted mortality was significantly higher (OR 1.2; 95% CI 1.1-1.4; p<0.001) and the number of coronary revascularization procedures performed were significantly lower in octogenarians (OR 0.25; 95% CI 0.23-0.27; p< 0.001) as compared with patients <80 years of age. However, the mortality was significantly lower in octogenarians undergoing coronary revascularization procedure (OR 0.49; 95%CI 0.44-0.54; p< 0.001) compared with patients who did not get any coronary revascularization procedure in the same age group. Octogenarians had significantly longer LOS (5.5 days vs. 4.6 days; p<0.001) and were discharged to a nursing home more often than those <80 years of age (OR 3.5; 95% CI 3.3-3.6, p<0.001). Further, octogenarians undergoing cardiac procedures were less likely to be discharged to nursing home (OR 0.51; 95%CI 0.48-0.53; p<0.001).
Conclusion: The in-hospital mortality is significantly lower in octogenarians undergoing coronary revascularization procedure. Octogenarians undergoing coronary revascularization procedure are often discharged to home.

TCT-412

Impact of Age on Coronary Endothelial Dysfunction in patients with Myocardial Bridge

Amro Elnagar, Seung Woon Rha, Byoung Geol Choi, Sung Il Im, SunWon Kim, Jin Oh Na, Seong Woo Han, Cheol Ung Choi, Hong Euy Lim, Jin Won Kim, Eung Ju Kim, Chang Gyu Park, Hong Seog Seo, Dong Joo Oh
Korea University Guro Hospital, Seoul, Republic of Korea

Background: Coronary endothelial dysfunction (CED) and subsequent clinical spasm at the myocardial bridge (MB) segment has been proposed as a risk factor for adverse cardiac events. There is limited data regarding age impact on CED severity in patients (pts) with MB.
Methods: A total 622 consecutive patients (pts, Men; 371, 59.6%, mean age 52.9± 12.0 years) who underwent coronary angiography with acetylcholine (Ach) provocation test were enrolled for this study. Study population was divided according to age limit of fifty years.
Results: Regarding baseline characteristics, age group more than 50 years had more hypertension (55.9% vs. 35.0%, p<0.001), diabetes (13.2% vs. 2.7%, p<0.001), and dyslipidemia(26.3% vs. 14.4 %, P<0.001). Ach test clinical endpoints were similar between the two groups. However, in age group more than 50 years; the frequency of significant Ach-induced spasm, response to A2 dose, mulitvessels spasm and >70% narrowing on QCA were significant higher on multivariate analysis (Table).

Table. Clinical and angiographic parameters of study population

Variables, n (%)	Less than 50 y: (n= 257 pts)	More than 50 y : (n=365 pts)	P value (Univariate)	P value (Multivariate)
EKG changes	12 (4.7)	21 (5.8)	0.553	0.714
Chest pain	140 (54.5)	196 (53.7)	0.848	0.773
Ach induced spasm >70%	173 (67.3)	302 (82.7)	<0.001	<0.001
Response to Ach dose:				
A1(20 mg)	16 (6.2)	24 (6.6)	0.861	0.908
A2(50 mg)	44 (17.1)	124 (34)	<0.001	<0.001
A3(100 mg)	112 (43.6)	149 (40.8)	0.493	0.623
QCA assessed spasm:				
QCA <50%	8 (3.1)	17 (4.7)	0.334	0.673
QCA 50-70%	72 (28)	114 (31.2)	0.388	0.350
QCA >70%	93 (36.2)	171 (46.8)	0.008	0.010
Number of affected vessels:				
Single vessel spasm	125 (48.6)	204 (55.9)	0.074	0.149
Multi vessel spasm	48 (18.7)	98 (26.8)	0.018	0.012
Diffuse spasm(>20 mm)	136 (78.6)	214 (70.9)	0.065	0.159

Conclusion: In pts with MB, older age (more than 50 years) was associated with more frequent significant spasm and multivessel spasm as assessed with Ach provocation test. Special care should be emphasized in these patients.

TCT-413

Safety and Efficacy of the Resolute Zotarolimus-eluting Stent in Patients ≥ 70 Years of Age

Ganesh Manoharan[1], Alan C Yeung[2], Petr Widimsky[3], Franz-Josef Neumann[4], Patrick W Serruys[5], Sigmund Silber[6], Stephan Windecker[7], Martin B Leon[8], Laura Mauri[9], Shigeru Saito[10], Ian T Meredith[11], Jorge Belardi[12]
[1]The Heart Centre, Royal Victoria Hospital, Belfast, United Kingdom; [2]Stanford University, Palo Alto, CA; [3]Cardiocenter Vinohardy, Prague, Czech Republic; [4]Herz-Zentrum Bad Krozingen, Bad Krozingen, Germany; [5]ErasmusMC, Rotterdam, Netherlands; [6]Heart Centre at the Isar, Munich, Germany; [7]University Heart Foundation, Bern, Switzerland; [8]Columbia University Medical Center and Presbyterian Hospital, New York, NY; [9]Brigham and Womens' Hospital and Harvard Medical School, Boston, MA; [10]Shonan Kamakura General Hospital, Kamakura City, Japan; [11]MonashHeart and Medical Centre, Melbourne, Australia; [12]Instituto Cardiovascular de Buenos Aires, Buenos Aires, Argentina

Background: Drug-eluting stents are standard of care for the treatment of obstructive coronary artery disease and are increasingly being used to treat patients with complex clinical and lesion characteristics. In addition, with over 350 million people in the world over the age of 70, evaluating clinical outcomes following percutaneous coronary intervention (PCI) in the elderly becomes important. The Global RESOLUTE Clinical Trial Program is evaluating the Resolute zotarolimus-eluting stent (R-ZES) in a set of trials specifically designed with consistent endpoint definitions; We pooled patient-level data from 5 trials that have completed their primary endpoint to evaluate the safety and efficacy of the R-ZES in the elderly population.
Methods: A total of 5130 patients received the R-ZES in the following trials; Resolute First-In-Man (139), Resolute All Comers (1140), Resolute International (2349), Resolute United States (1402), and Resolute Japan (100). We compared baseline and 1-year clinical outcomes for patients < 70 years of age, vs. ≥ 70 years of age.
Results: Compared with patients < 70 (N = 3455) at the index procedure, more patients ≥ 70 were female (33.1% vs. 21.2%, p < 0.001); had diabetes (34.3% vs. 27.8%, p = < 0.001); and less presented with ACS (39.5% vs. 42.5%, p = 0.04). At 1 year, higher rates of death (3.9% vs. 0.9%, p < 0.001), and cardiac death (2.3% vs. 0.6%, P < 0.001) in the older patients drove higher rates of the composites of MACE (9.2% vs. 6.7%, p = 0.001) and TVF (8.7% vs. 6.9%, p = 0.02); yet age did not affect the rates of target-vessel myocardial infarction (2.7% vs 3.1%, p = 0.536), clinically-driven TLR (3.3% vs. 3.2%, p = 0.93) or TVR (4.6% vs 4.2%, p = 0.55).
Conclusion: These data support the use of the R-ZES for PCI in patients over 70.

TCT-414

Predictors of In-Hospital Mortality in Acute Myocardial Infarction in Elderly Patients

Harald Rittger[1], Anil Sinha[2], Steffen Schnupp[2], Johannes Rieber[3], Johannes Brachmann[2]
[1]Universitätsklinik Erlangen, Erlangen, Germany; [2]Klinikum Coburg, Coburg, Germany; [3]Klinikum Bogenhausen, Muenchen, Germany

Background: Elderly constitute an increasing proportion of all patients, who are admitted for acute coronary syndromes (ACS) to the hospital. Since increased age is a risk factor itself for death and recurrent MI, physicians are faced with immediate decisions about the different management strategies in this patient group, which will affect short- and long term outcome. The purpose of this study was to identify predictors of inhospital mortality in either interventionally or conservatively treated patients in a large consecutive series of elderly (> 75 years), presenting to our hospital with ACS.
Methods: Between 01/05 and 11/07 1001 patients > 75 ys. were treated for ACS in our hospital. Records were evaluated and patients were identified on the basis of their discharge diagnosis. Adverse outcome, defined as the appearance of death, myocardial infarction, complicated hospital stay, pneumonia and interventional complications like bleeding, stroke and reinfarction etc. was evaluated. Using a multivariate regression analysis, we identified factors which predicted inhospital mortaliy.
Results: Out of 1001 patients (mean age 81±5 Jahre, 512 (51.1% female), Killip-class 1,4±0,75, EF 47±15%) 776 [77.5 %] were treated invasively; wherease 247 [22.5%] were teated conservatively. A total of 62 deaths (6.2%) occurred in hospital, mortality was significantly higher in conservatively treated patients (p<0.001). Mortality rates were 15.6% in conservatively and 3.5% in interventionally treated patients. Early risks were highest for patients with a high GRACE-score (p=0.002), eligibility for a conservative treatment (p=0.012), Killip-class ≥ 2 (p=0.031) and prior stroke (p=0.031). In this model age had had no predictive value for inhospital mortality (p=0.354).
Conclusion: In our large data base of 1001 patients age was not a predictor of inhospital mortality. Therefore advanced age should not be the main factor in decision making for conservative or invasive treatment in elderly patients with ACS and an invasive strategy should be offered also to elderly patients.

POSTERS